



0000155920

BEFORE THE ARIZONA CORPORATION

COMMISSIONERS

BOB STUMP - Chairman
GARY PIERCE
BRENDA BURNS
BOB BURNS
SUSAN BITTER SMITH

ORIGINAL

IN THE MATTER OF THE APPLICATION OF
ABRA WATER COMPANY, AN ARIZONA
CORPORATION, FOR A DETERMINATION
OF THE CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY AND FOR
INCREASES IN ITS RATES AND CHARGES
FOR UTILITY SERVICE.

DOCKET NO. W-01782A-14-0084

**STAFF'S NOTICE OF FILING
SURREBUTTAL TESTIMONY**

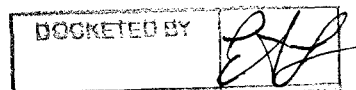
Staff of the Arizona Corporation Commission ("Staff") hereby files the Surrebuttal Testimony
of Brendan Aladi and Crystal S. Brown in the above docket.

RESPECTFULLY SUBMITTED this 15th day of September 2014.

Arizona Corporation Commission

DOCKETED

SEP 15 2014



Matthew Laudone, Attorney
Bridget Humphrey, Attorney
Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
(602) 542-3402

Original and thirteen (13) copies
of the foregoing filed this
15th day of September 2014 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

AZ CORP COMMISSION
DOCKET CONTROL

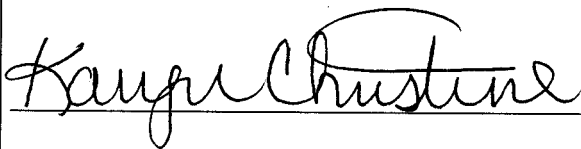
2014 SEP 15 A 10:51

RECEIVED

1 Copy of the foregoing emailed/mailed
2 this 15th day of September 2014 to:

3 Robert J. Metli
4 Munger Chadwick, PLC
5 2398 East Camelback Road, Suite 240
6 Phoenix, Arizona 85016
7 rjmetli@mungerchadwick.com

8 Kevan Larson
9 President/CEO
10 Abra Water Company, Inc.
11 Post Office Box 515
12 Paulden, Arizona 86334
13 kevanlarson@cableone.net

14
15
16
17
18
19
20
21
22
23
24
25
26
27
28


BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP

Chairman

GARY PIERCE

Commissioner

BRENDA BURNS

Commissioner

BOB BURNS

Commissioner

SUSAN BITTER SMITH

Commissioner

IN THE MATTER OF THE APPLICATION OF)
ABRA WATER COMPANY, INC. AN ARIZONA)
COPORATION, FOR DETERMINATION OF THE)
CURRENT FAIR VALUE OF ITS UTILITY)
PLANT AND PROPERTY AND FOR)
INCREASES IN ITS RATES AND CHARGES)
FOR UTILITY SERVICE)
_____)

DOCKET NO. W-01782A-14-0084

SURREBUTTAL

TESTIMONY

OF

BRENDAN C. ALADI

PUBLIC UTILITIES ANALYST III

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

SEPTEMBER 15, 2014

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PURPOSE OF SURREBUTTAL TESTIMONY	1
RATE BASE.....	2
Water Treatment Plant.....	2
Accumulated Depreciation.....	3
Cash Working Capital Allowance	4
REVENUE REQUIREMENT	5
RATE DESIGN	5

SCHEDULES

Revenue Requirement.....	BCA-1
Gross Revenue Conversion Factor.....	BCA-2
Rate Base – Original Cost	BCA-3
Summary of Rate Base Adjustments	BCA-4
Rate Base Adjustment No. 1 – Water Treatment Plant.....	BCA-5
Rate Base Adjustment No. 2 – Accumulated Depreciation.....	BCA-6
Rate Base Adjustment No. 3 – CIAC.....	BCA-7
Rate Base Adjustment No. 4 – Amortization of CIAC.....	BCA-8
Rate Base Adjustment No. 5 – Cash Working Capital	BCA-9
Operating Income Statement – Test Year and Staff Recommended	BCA-10
Summary of Operating Income Adjustments – Test Year.....	BCA-11
Operating Income Adjustment No. 1 – Outside Services	BCA-12
Operating Income Adjustment No. 2 – Contractual Services, Testing.....	BCA-13
Operating Income Adjustment No. 3 – Rents.....	BCA-14
Operating Income Adjustment No. 4 – Insurance, General Liability.....	BCA-15
Operating Income Adjustment No. 5 – Insurance, Health and life	BCA-16
Operating Income Adjustment No. 6 – Rate case Expense	BCA-17
Operating Income Adjustment No. 7 – Bad Debt Expense	BCA-18
Operating Income Adjustment No. 8 – Depreciation Expense.....	BCA-19
Operating Income Adjustment No. 9 – Taxes Other Than Income.....	BCA-20
Operating Income Adjustment No. 10 – Property Tax Expense	BCA-21
Operating Income Adjustment No. 11 – Income Taxes.....	BCA-22
Operating Income Adjustment Financial Analysis.....	BCA-23
Comparison of Last Rate Case Application to General Ledger	BCA-24
Rate Design	BCA-25
Typical Bill Analysis	BCA-26

**EXECUTIVE SUMMARY
ABRA WATER COMPANY
DOCKET NO. W-01782A-14-0084**

Staff continues to recommend a \$3,894 or 1.44 percent revenue increase for the Company. However, Staff identified a problem within the Company's test year bill count generated revenue calculations and as a result, Staff believes that current rates will actually generate higher revenues by approximately this same \$3,894 amount. Therefore, Staff recommends no adjustment to currently approved rates. Staff's adjusted OCRB is \$461,824 as shown on Schedule BCA-1

The surrebuttal testimony discusses the changes made to Staff's direct testimonies and responds, on behalf of Staff, to the rebuttal testimony of Mr. Thomas J. Bourassa, witness for Abra Water Company ("Abra" or "Company"). Staff will discuss the following issues:

1. Rate Base
 - a. Water Treatment Plant
 - b. Accumulated Depreciation Reserve
 - c. Cash Working Capital
2. Revenue Requirement
3. Rate Design

1 **INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Brendan C. Aladi. I am a Public Utilities Analyst III employed by the Arizona
4 Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.
6

7 **Q. Are you the same Brendan C. Aladi who filed direct testimony in this case?**

8 A. Yes.
9

10 **PURPOSE OF SURREBUTTAL TESTIMONY**

11 **Q. What is the purpose of your surrebuttal testimony in this proceeding?**

12 A. The purpose of my surrebuttal testimony in this proceeding is to respond, on behalf of Staff,
13 to the rebuttal testimony of Mr. Thomas J. Bourassa, witness for Abra Water Company
14 ("Abra" or "Company").
15

16 **Q. What issues will you address?**

17 A. I will address the following issues:

- 18 1. Rate Base
- 19 a. Water Treatment Plant
- 20 b. Accumulated Depreciation Reserve
- 21 c. Cash Working Capital
- 22 2. Revenue Requirement
- 23 3. Rate Design
- 24

1 **Q. Does your silence on any particular issue raised in the Company's rebuttal testimony**
2 **indicate that Staff agrees with the Company's stated rebuttal position?**

3 A. No. Rather, where I do not respond I rely on my direct testimony.
4

5 **RATE BASE**

6 *Water Treatment Plant*

7 **Q. Has Staff reviewed the Company's rebuttal testimony concerning the Water**
8 **Treatment Plant?**

9 A. Yes. The Company stated that Staff did not increase the plant-in-service in the last rate case
10 for the arsenic treatment costs.
11

12 **Q. Does Staff agree?**

13 A. No. The Company's rebuttal Exhibit TJB-RB1 shows the general ledger activity for account
14 320, Water Treatment Equipment. This activity shown on the table below indicates that the
15 \$145,001.72 balance (line 12) includes the cost of arsenic treatment plant in the amount of
16 \$88,347.21 purchased from Aquacell Water Treatment Inc. (line 6). The Company
17 reclassified \$79,900 (line 8) of the \$88,347.21 to prepaid expense. The Company also added
18 arsenic treatment plant in the amount of \$102,209.50 (line 11). Therefore the \$145,001.72
19 balance shown on this table included \$102,209.50 in Arsenic Treatment Plant as shown in the
20 table below. The activity in account 320 is as follows:
21

Line No.	Year	Per Co.'s G/L	Description
1	1997	\$ 3,147.82	FA Adj
2	1999	\$ 368.70	Deposits
3	2002.	\$ (947.00)	Staff Adjustment
4	2004	\$ 1,501.41	Arden Industries/McPhee
5	2006	\$ 12,348.34	Arsenic/Chlorinator Pump/
6	2007	\$ 88,347.21	Aquacell
7	2008	\$ 20,785.79	Aquacell

8	2008	\$ (79,900.00)	Reclass to Prepaid Expense
9	2009	\$ (2,860.05)	Reclass to Chemical Feeder
10	Sub Total	\$ 42,792.22	
11	2009	\$ 102,209.50	Arsenic Treatment Plant
12	Total	\$ 145,001.72	

1

2 **Q. What is Staff's recommendation?**

3 A. Staff continues to recommend the removal of the \$79,990 from account 320, as shown on
4 Surrebuttal Schedules BCA-3 and BCA-5. Effectively, Staff is reversing the Company's 2009
5 decision to add this back to plant.

6

7 **Q. How does Staff's recommendation compare to its direct testimony?**

8 A. Staff's recommendation is the same as its direct testimony.

9

10 *Accumulated Depreciation*

11 **Q. Has Staff reviewed the Company's rebuttal testimony concerning Accumulated**
12 **Depreciation?**

13 A. Yes. The Company's rebuttal testimony reflects the accumulated depreciation on the arsenic
14 media.

15

16 **Q. Does Staff agree?**

17 A. No. Staff did not include arsenic treatment plant; therefore, Staff did not capture the
18 associated depreciation reserve advocated by the Company.

19

20 **Q. What is Staff's recommendation?**

21 A. Staff recommends that no additional accumulated depreciation related to Water Treatment
22 Plant be reflected.

23

1 **Q. How does Staff's recommendation compare to its direct testimony?**

2 A. Staff's recommendation is the same as its direct testimony.

3

4 *Cash Working Capital Allowance*

5 **Q. Has Staff reviewed the Company's rebuttal testimony concerning working capital**
6 **allowance?**

7 A. Yes. The Company states that "the formula method is a reasonable estimate of what a lead
8 lag study would produce without the related expense of a lead lag study."

9

10 **Q. Does Staff agree?**

11 A. No. The formula method always produces a positive amount. Had a lead lag study been
12 performed the resulting cash working capital could have been negative. The Company also
13 chose not to conduct a lead-lag study, which is required to support working capital for class C
14 utilities.

15

16 **Q. What is Staff's recommendation?**

17 A. Staff continues to recommend that the Company's Cash Working Capital using the formula
18 method be disallowed.

19

20 **Q. How does Staff's recommendation compare to its direct testimony?**

21 A. Staff's recommendation is the same as its direct testimony.

22

23 **Q. What is Staff's recommended rate base?**

24 A. Staff's recommended rate base continues to be \$461,824 as shown on Surrebuttal Schedule
25 BCA-3.

26

1 **REVENUE REQUIREMENT**

2 **Q. Has Staff increased its recommended revenue requirement?**

3 A. No.

4

5 **Q. What is Staff's recommended revenue requirement?**

6 A. Staff's recommended revenue requirement continues to be \$275,902 as shown on Surrebuttal
7 Schedule BCA-1.

8

9 **RATE DESIGN**

10 **Q. Has Staff revised its rate design?**

11 A. No. Staff's rate design has not changed from the direct testimony as shown on Surrebuttal
12 Schedule BCA-25.

13

14 **Q. Does this conclude your surrebuttal testimony?**

15 A. Yes.

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION		[A] COMPANY ORIGINAL COST	[B] STAFF ORIGINAL COST
1	Adjusted Rate Base		\$ 570,570	\$ 461,824
2	Adjusted Operating Income (Loss)		\$ 16,436	\$ 35,570
3	Current Rate of Return (L2 / L1)		2.88%	7.70%
4	Required Rate of Return		8.85%	7.50%
5	Required Operating Income (L4 * L1)	Note 1	\$ 50,495	\$ 34,637
6	Operating Income Deficiency (L5 - L2)	Note 2		
		Note 3	\$ 34,059	\$ 3,046
7	Gross Revenue Conversion Factor		1.2732	1.2784
8	Increase (Decrease) In Gross Revenue (L7 * L6)		\$ 43,349	\$ 3,894
9	Adjusted Test Year Revenue		\$ 270,040	\$ 270,040
10	Proposed Annual Revenue (L8 + L9)		\$ 313,389	\$ 273,934
11	Required Increase/(Decrease in Revenue) (%) (L8/L9)		16.05%	1.44%

References:

Column [A]: Company Schedules A-1

Column [B]: Staff Schedules BCA-2, BCA-3, & BCA-12

Note:1 Actual calculation results in \$50,495, but the Company requested \$50,482.

Note:2 Staff is recommending \$35,582, although the calculated amount is \$34,637.

Note:3 Although no increase in rates is indicated, Staff recommends this increase to cover test year revenue for declining usage adjustment and small miscellaneous adjustment.

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.3142%			
3	Revenues (L1 - L2)	99.6858%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	21.4600%			
5	Subtotal (L3 - L4)	78.2258%			
6	Revenue Conversion Factor (L1 / L5)	1.278350			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	20.5250%			
9	One Minus Combined Income Tax Rate (L7 - L8)	79.4750%			
10	Uncollectible Rate	0.3953%			
11	Uncollectible Factor (L9 * L10)	0.3142%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.5000%			
14	Federal Taxable Income (L12 - L13)	93.5000%			
15	Applicable Federal Income Tax Rate (Line 53)	15.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	14.0250%			
17	Combined Federal and State Income Tax Rate (L13 + L16)		20.5250%		
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	20.5250%			
20	One Minus Combined Income Tax Rate (L18-L19)	79.4750%			
21	Property Tax Factor	100.4807%			
22	Effective Property Tax Factor (L20*L21)		0.9350%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			21.4600%	
24	Required Operating Income	\$ 35,570			
25	Adjusted Test Year Operating Income (Loss)	32,524			
26	Required Increase in Operating Income (L24 - L25)		\$ 3,046		
27	Income Taxes on Recommended Revenue (Col. [C], L52)	\$ 5,966			
28	Income Taxes on Test Year Revenue (Col. [A], L52)	5,179			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		787		
30	Recommended Revenue Requirement	\$ 273,934			
31	Uncollectible Rate (Line 10)	0.3953%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ 1,083			
33	Adjusted Test Year Uncollectible Expense	\$ 1,068			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)		15		
35	Property Tax with Recommended Revenue	\$ 9,576			
36	Property Tax on Test Year Revenue	9,531			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		46		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 3,894		
<u>Calculation of Income Tax:</u>					
39	Revenue	\$ 270,040	\$ 3,894	Staff Recommended	\$ 273,934
40	Operating Expenses Excluding Income Taxes	\$ 232,337	\$ 60		\$ 232,398
41	Synchronized Interest (L56)	\$ 12,469			\$ 12,469
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 25,234			\$ 29,067
43	Arizona State Income Tax Rate	6.5000%			6.5000%
44	Arizona Income Tax (L42 x L43)	\$ 1,640			\$ 1,889
45	Federal Taxable Income (L42 - L44)	\$ 23,594			\$ 27,178
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 3,539			\$ 4,077
47	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ -			\$ -
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -			\$ -
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -			\$ -
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -			\$ -
51	Total Federal Income Tax	\$ 3,539			\$ 4,077
52	Combined Federal and State Income Tax (L44 + L51)	\$ 5,179			\$ 5,966
53	Applicable Federal Income Tax Rate [Col. [C], L51 - Col. [A], L51] / [Col. [C], L45 - Col. [A], L45]			15.0000%	
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base	\$ 461,824			
55	Weighted Average Cost of Debt	2.7000%			
56	Synchronized Interest (L45 X L46)	\$ 12,469			
			\$ 232,337.00		232,383

RATE BASE - ORIGINAL COST

LINE NO.		(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	ADJ NO.	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 1,523,414	\$ (79,900)	1	\$ 1,443,514
2	Less: Accumulated Depreciation Reserve	659,371	(6,343)	2	653,028
3	Net Plant in Service	<u>\$ 864,043</u>	<u>\$ (73,557)</u>		<u>\$ 790,486</u>
	<u>LESS:</u>				
4	Advances in Aid of Construction (AIAC)	\$ 196,858	\$ -		\$ 196,858
5	Contributions in Aid of Construction (CIAC)	\$ 359,028	\$ 6,795	3	\$ 365,823
6	Less: Accumulated Amortization	257,496	(5,760)	4	251,736
7	Net CIAC	<u>\$ 101,532</u>	<u>12,555</u>		<u>\$ 114,087</u>
8	Total Advances and Contributions	\$ 298,390	\$ 12,555		\$ 310,945
9	Meter Deposits	\$ 14,650	\$ -		\$ 14,650
10	Customer Security Deposits	\$ 3,067	\$ -		\$ 3,067
11	Accumulated Deferred Income Taxes	\$ -	\$ -		\$ -
	<u>ADD: Working Capital</u>	<u>\$ -</u>	<u>\$ -</u>		<u>\$ -</u>
12	Cash Working Capital	\$ 22,634	\$ (22,634)	5	\$ -
13	Prepayments	\$ -	\$ -		\$ -
14	Total Rate Base	<u>\$ 570,570</u>	<u>\$ (108,746)</u>		<u>\$ 461,824</u>

References:

Column [A], Company Schedule B-1, Page 1
Column [B]: Schedule BCA-4
Column [C]: Column [A] + Column [B]

LINE NO.	PLANT IN SERVICE	Acct.	[A]		[B]		[C]		[D]		[E]		[G]	
			COMPANY AS FILED	\$	Treatment Plant		ADJ.No.2 Accumulated Depreciation	ADJ.No.3 CIAC	ADJ.No.4 Amortization of CIAC	Working Capital Prepayments	ADJ.No.5			
					Ref. Sch BCA-5	Ref. Sch BCA-6						Ref. Sch BCA-7	Ref. Sch BCA-8	Ref. Sch BCA-10
1	No. - f Plant Description Cost		508	\$	-	\$	-	\$	-	\$	-	-	508	
2	301 Organisations		787		-		-		-		-	-	787	
4	303 Land and Land Rights		15,044		-		-		-		-	-	15,044	
5	304 Structures and Improvements		72,787		-		-		-		-	-	72,787	
6	307 Wells and Springs		67,868		-		-		-		-	-	67,868	
7	309 Supply Mains		-		-		-		-		-	-	-	
8	310 Power Generation Equipment		-		-		-		-		-	-	-	
9	311 Electric Pumping Equipment		77,467		-		-		-		-	-	77,467	
10	320 Water Treatment Equipment		-		-		-		-		-	-	-	
11	320.1 Water Treatment Plant		145,002	(79,900)	-		-		-		-	-	65,102	
12	320.2 Chemical Solution Feeders		4,654		-		-		-		-	-	4,654	
13	320.3 Media for Arsenic Treatment		65,560		-		-		-		-	-	65,560	
14	330 Distribution Reservoirs and Standpipes		-		-		-		-		-	-	-	
15	330.1 Storage Tank		197,626		-		-		-		-	-	197,626	
16	331 Transmission and Distribution Mains		659,578		-		-		-		-	-	659,578	
17	333 Services		133,392		-		-		-		-	-	133,392	
18	334 Meters and Meter Installations		40,035		-		-		-		-	-	40,035	
19	335 Hydrants		-		-		-		-		-	-	-	
20	336 Backflow Prevention Devices		-		-		-		-		-	-	-	
21	339 Other Plant and Miscellaneous Equipment		9,890		-		-		-		-	-	9,890	
22	340 Office Furniture and Equipment		278		-		-		-		-	-	278	
23	340.1 Computers and Software		6,098		-		-		-		-	-	6,098	
24	341 Transportation Equipment		20,280		-		-		-		-	-	20,280	
25	343 Tools, Shop, and Garage Equipment		65		-		-		-		-	-	65	
26	344 Laboratory Equipment		-		-		-		-		-	-	-	
27	345 Power Operated Equipment		-		-		-		-		-	-	-	
28	346 Communication Equipment		1,855		-		-		-		-	-	1,855	
29	347 Miscellaneous Equipment		95		-		-		-		-	-	95	
30	348 Other Tangible Equipment		4,545		-		-		-		-	-	4,545	
31	Rounding		-		-		-		-		-	-	-	
32	Total Plant in Service		\$ 1,523,414	\$ (79,900)	\$	-	\$	-	\$	-	\$	-	\$ 1,443,514	
33	Less: Accumulated Depreciation		\$ 659,371	\$	-	\$	(6,343)	\$	-	\$	-	\$	653,028	
34	Net Plant in Service		\$ 864,043	\$ (79,900)	\$	6,343	\$	-	\$	-	\$	-	\$ 790,486	
36	LESS:													
37	Advances in Aid of Construction (AIAC)		\$ 196,858	\$	-	\$	-	\$	-	\$	-	\$	196,858	
38			\$		-		-		-		-		-	
39			\$		-		-		-		-		-	
40	Contributions in Aid of Construction (CIAC)		\$ 359,028		-		-		6,795		-		365,823	
41	Less: Accumulated Amortization of CIAC		\$ 257,496		-		-		(5,760)		-		251,736	
42	Net CIAC		\$ 101,532	\$	-	\$	6,795	\$	5,760	\$	-	\$	114,087	
43			\$		-		-		-		-		-	
44	Total Advances and Net Contributions		\$ 298,390	\$	-	\$	6,795	\$	5,760	\$	-	\$	310,945	
45			\$		-		-		-		-		-	
46	Customer Meter Deposits		\$ 14,650		-		-		-		-	\$	14,650	
47	Customer Security Deposits		\$ 3,067		-		-		-		-	\$	3,067	
48	Accumulated Deferred Taxes		\$ -		-		-		-		-	\$	-	
49			\$		-		-		-		-	\$	-	
50	ADD: Working Capital		\$ -		-		-		-		-	\$	-	
51	Cash Working Capital		\$ 22,634		-		-		-		-	(22,634)	\$	
52			\$		-		-		-		-	\$	-	
53	Total Rate Base		\$ 570,570	\$ (79,900)	\$	6,343	\$	(6,795)	\$ (5,760)	\$	-	\$	461,824	

RATE BASE ADJUSTMENT NO. 1 - WATER TREATMENT PLANT

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	Water Treatment Plant	\$ 145,002	(79,900)	65,102

References:

Column A: Company Schedule B-2
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-6

RATE BASE ADJUSTMENT NO. 2 - ACCUMULATED DEPRECIATION

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
1	Accumulated Depreciation	\$	659,371	\$	(6,343)	\$	653,028
2							
3							
4							
5	Computation:						
6							
7							
8	Water Treatment Plant	\$	25,855	\$	(6,651)	\$	19,204
9	Arsenic Media	\$	30,802	\$	308	\$	31,110
10							
11		\$	56,657	\$	(6,343)	\$	50,314

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-7

RATE BASE ADJUSTMENT NO. 3 -CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Gross CIAC	\$ 359,028	\$ 6,795	\$ 365,823
2				
3				
4				
5	12/31/2009 Ending CIAC Balance			\$ 320,237
6	2010 Net CIAC Additions	2010		7,309
7	2011 Net CIAC Additions	2011		24,529
8	2012 Net CIAC Additions	2012		13,748
9				<u>\$ 365,823</u>

References:

Column A: Company's Schedule B-2

Column B: Testimony, Brendan Aladi

Column C: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 4 - AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
1	Amortization of CIAC	\$	257,496	(5,760)	\$	251,736	-5496
2							
3							
4							
5	CALCULATION OF AMORTIZATION OF CIAC						
6				CIAC		Amortization of	
7	AIAC Transferred to CIAC			Additions		CIAC	
8	12/31/2009 Ending CIAC Amort. Balance						\$200,895
9	2010 Net CIAC Additions	\$		7,309			\$16,102
10	2011 Net CIAC Additions	\$		24,529			\$16,894
12	2012 Net CIAC Additions	\$		13,748			\$17,845
13		\$		45,586			\$251,736

* Half year convention

References:

Column A: Company Schedule B-2
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-9

RATE BASE ADJUSTMENT NO. 5 - WORKING CAPITAL

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		PER COMPANY		ADJUSTMENT		PER STAFF	
	Cash Working Capital	\$ 22,634		\$ (22,634)		\$ -	

References:

Column A: Company Schedule B-2
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	ADJ NO.	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
REVENUES:							
1	Metered Water Sales	\$ 262,282	\$ -		\$ 262,282	\$ 3,894	\$ 266,176
2	Water Sales - Unmetered	-	-		-	-	-
3	Other Operating Revenues	7,758	-		7,758	-	7,758
4	Total Revenues	\$ 270,040	\$ -		\$ 270,040	\$ 3,894	\$ 273,934
EXPENSES:							
7	Salaries and Wages	\$ -	\$ -		\$ -	\$ -	\$ -
8	Employee Pensions & Benefits	-	-		-	-	-
9	Purchased Power	17,285	-		17,285	-	17,285
10	Fuel for Power Production	-	-		-	-	-
11	Chemicals	191	-		191	-	191
12	Materials & Supplies	5,588	-		5,588	-	5,588
13	Office Supplies & Expense	10,243	-		10,243	-	10,243
14	Outside Services	107,983	(1,880)	1	106,103	-	106,103
18	Water Testing	6,123	(2,805)	2	3,318	-	3,318
19	Rents	10,307	(779)	3	9,528	-	9,528
20	Transportation Expenses	7,017	-		7,017	-	7,017
21	Insurance - General Liability	3,926	(447)	4	3,479	-	3,479
22	Insurance - Health and Life	2,988	(2,988)	5	-	-	-
23	Reg. Comm. Exp.	-	-		-	-	-
24	Reg. Comm. Exp. - Rate Case	11,667	(2,917)	6	8,750	-	8,750
25	Miscellaneous Expense	-	-		-	-	-
26	Bad Debt Expense	9,367	(8,299)	7	1,068	15	1,083
27	Depreciation Expense	51,585	(1,349)	8	50,236	-	50,236
28	Taxes Other Than Income	554	(554)	9	-	-	-
29	Property Taxes	9,714	(183)	10	9,531	46	9,577
30	Income Taxes	(930)	6,109	11	5,179	790	5,969
31	Not Used	-	-		-	-	-
32	To Reconcile To Company's Application	(4)	4		-	-	-
33	Total Operating Expenses	\$ 253,604	\$ (16,088)		\$ 237,516	\$ 851	\$ 238,368
34							
35	Operating Income (Loss)	\$ 16,436	\$ 16,088		\$ 32,524	\$ 3,043	\$ 35,570

References:

Column (A): Company Schedule C-1
Column (B): Schedule BCA-12
Column (C): Column (A) + Column (B)
Column (D): Schedules BCA-1 and BCA-2
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[C] ADJ #1 Outside Services Expense Ref: Sch BCA-13	[F] ADJ #2 Contractual Services Water Testing Expense Ref: Sch BCA-14	[D] ADJ #3 Rent Expense Ref: Sch BCA-15	[E] ADJ #4 General Liability Insurance Expense Ref: Sch BCA-16	[F] ADJ #5 Health & Life Insurance Expense Ref: Sch BCA-17	[G] ADJ #6 Rate Case Expense Ref: Sch BCA-18	[H] Subtotal
1	REVENUES:								
2	Metered Water Sales	\$ 262,282	-	-	-	-	-	-	262,282
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-
4	Other Operating Revenues	-	-	-	-	-	-	-	-
5	Total Revenues	\$ 270,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,040
6	OPERATING EXPENSES:								
7	Salaries and Wages	\$ -	-	-	-	-	-	-	-
8	Purchased Water	-	-	-	-	-	-	-	-
9	Purchased Power	17,285	-	-	-	-	-	-	17,285
10	Fuel for Power Production	-	-	-	-	-	-	-	-
11	Chemicals	191	-	-	-	-	-	-	191
12	Materials & Supplies	5,588	-	-	-	-	-	-	5,588
13	Office Supplies & Expense	10,243	-	-	-	-	-	-	10,243
14	Outside Services	107,983	-	-	-	-	-	-	106,103
15	Water Testing	6,123	(1,880)	(2,805)	-	-	-	-	3,318
16	Rents	10,307	-	-	(779)	-	-	-	9,528
17	Transportation Expenses	7,017	-	-	-	-	-	-	7,017
18	Insurance - General Liability	3,926	-	-	-	(447)	-	-	3,479
19	Insurance - Health and Life	2,988	-	-	-	-	(2,988)	-	-
20	Reg. Comm. Exp.	-	-	-	-	-	-	-	-
21	Reg. Comm. Exp. - Rate Case	11,667	-	-	-	-	-	(2,917)	8,750
22	Miscellaneous Expense	-	-	-	-	-	-	-	-
23	Bad Debt Expense	9,367	-	-	-	-	-	-	9,367
24	Depreciation Expense	51,585	-	-	-	-	-	-	51,585
25	Taxes Other Than Income	554	-	-	-	-	-	-	554
26	Property Taxes	9,714	-	-	-	-	-	-	9,714
27	Income Taxes	(930)	-	-	-	-	-	-	(930)
28	Not Used	-	-	-	-	-	-	-	-
29	To Reconcile To Company's Application	4	-	-	-	-	-	-	4
30	Total Operating Expenses	\$ 253,612	\$ (1,880)	\$ (2,805)	\$ (779)	\$ (447)	\$ (2,988)	\$ (2,917)	\$ 241,796
31	Operating Income (Loss)	\$ 16,428	\$ 1,880	\$ 2,805	\$ 779	\$ 447	\$ 2,988	\$ 2,917	\$ 28,244

SUMMARY OF OPERATING INCOME ADJUSTMENT NO. 1 - TEST YEAR CONTINUED

LINE NO.	DESCRIPTION	(I) ADJ #7 Bad Debt Expense Ref: Sch BCA-20	(J) ADJ #8 Depreciation Expense Ref: Sch BCA-21	(K) ADJ #9 Other Than Taxes Income Ref: Sch BCA-22	(L) ADJ #10 Property Tax Expense Ref: Sch BCA-23	(M) ADJ #11 Income Tax Expense Ref: Sch BCA-24	(N) STAFF ADJUSTED
1	REVENUES:						
2	Metered Water Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Water Sales - Unmetered	-	-	-	-	-	-
4	Other Operating Revenues	-	-	-	-	-	-
5	Total Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 262,282
6	OPERATING EXPENSES:						
7	Salaries and Wages	-	-	-	-	-	-
8	Purchased Water	-	-	-	-	-	-
9	Purchased Power	-	-	-	-	-	17,285
10	Fuel for Power Production	-	-	-	-	-	-
11	Chemicals	-	-	-	-	-	191
12	Materials & Supplies	-	-	-	-	-	5,588
13	Office Supplies & Expense	-	-	-	-	-	10,243
14	Outside Services	-	-	-	-	-	106,103
15	Water Testing	-	-	-	-	-	3,318
16	Rents	-	-	-	-	-	9,528
17	Transportation Expenses	-	-	-	-	-	7,017
18	Insurance - General Liability	-	-	-	-	-	3,479
19	Insurance - Health and Life	-	-	-	-	-	-
20	Reg. Comm. Exp.	-	-	-	-	-	-
21	Reg. Comm. Exp. - Rate Case	-	-	-	-	-	8,750
22	Miscellaneous Expense	-	-	-	-	-	-
23	Bad Debt Expense	(8,299)	-	-	-	-	1,068
24	Depreciation Expense	-	(1,349)	-	-	-	50,236
25	Taxes Other Than Income	-	-	(554)	-	-	-
26	Property Taxes	-	-	-	(183)	-	9,531
27	Income Taxes	-	-	-	-	6,109	5,179
28	Not Used	-	-	-	-	-	-
29	To Reconcile To Company's Application	-	-	-	-	-	4
30	Total Operating Expenses	\$ (8,299)	\$ (1,349)	\$ (554)	\$ (183)	\$ 6,109	\$ 237,519
31	Operating Income (Loss)	\$ 8,299	\$ 1,349	\$ 554	\$ 183	\$ (6,109)	\$ 32,524

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-12

OPERATING INCOME ADJUSTMENT NO. 1 - OUTSIDE SERVICES EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	Outside Services	\$ 107,983	\$ (1,880)	\$ 106,103

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-13

OPERATING INCOME ADJUSTMENT NO. 2 - CONTRACT SRVCS., WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	Contractual Services - Water Testing	\$ 6,123	\$ (2,805)	\$ 3,318

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-14

OPERATING INCOME ADJUSTMENT NO. 3 - RENTS EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	Rents Expense	\$ 10,307	\$ (779)	\$ 9,528

Rents Expense		
2012 Land Lease Expense	\$ 2,554	BCA 3.2
Equipment Rental Expense	\$ 374	BCA 2.8
Office Rent Expense	\$ 6,600	BCA 3.2
Staff's Adjusted	<u>9,528</u>	

References:

Column A: Company Schedule C-1 & E-2
Column B: Testimony, Brendan Aladi; Data Request BCA 3.2
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-15

OPERATING INCOME ADJUSTMENT NO. 4 - GENERAL LIABILITY INSURANCE EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	General Liability Insurance Expense	\$ 3,926	\$ (447)	\$ 3,479

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi; Date Request BCA-2.10
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-16

OPERATING INCOME ADJUSTMENT NO. 5 - HEALTH AND LIFE INSURANCE EXPENSE

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
	Health and Life Insurance Expense	\$	2,988	\$	(2,988)	\$	-

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 6 - RATE CASE EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
	Rate Case Expense	\$ 11,667	\$ (2,917)	\$ 8,750

	Per Company	Difference	Per Staff
	\$ 35,000		\$ 35,000
Divided by	3		4
	\$ 11,667		\$ 8,750

References:

- Column A: Company Schedule C-1
- Column B: Testimony, Brendan Aladi
- Column C: Column [A] + Column [B]

Surrebuttal Schedule BCA-18

		[A]	[B]	[C]
LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS (Col C - Col A)	STAFF AS ADJUSTED
1	Bad Debt Expense	\$ 9,367	\$ (8,299)	\$ 1,068
2				
3				
4				
5			Bad Debt	
6			Expense	
7		Year	Write-off	
8		2003	\$ 0.25	
9		2004	\$ 217.33	
10		2005	\$ 810.02	
11		2006	\$ 1,369.37	
12		2007	\$ 756.88	
13		2008	\$ 1,602.45	
14		2009	\$ 1,238.56	
15		2010	\$ 1,567.24	
		2011	\$ 2,045.66	
		Total	\$ 9,607.76	
		Divided by	9	Years
		=	\$ 1,068	
			\$ 270,040	Test Year Revenue
			0.3953%	Average write-off rate

Column A: Company Schedule C-2
Column B: Testimony, Brendan Aladi; Company Data Request Responses to BCA 2.13
Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 8 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

LINE NO.	DESCRIPTION	[A] PLANT In SERVICE Per Staff	[B] NonDepreciable or Fully Depreciated PLANT	[C] DEPRECIABLE PLANT (Col A - Col B)	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE (Col C x Col D)
1	301 Organization Cost	\$ 508	\$ 508	-	0.00%	\$ -
2	302 Franchises	787	787	-	0.00%	-
3	303 Land and Land Rights	15,044	15,044	-	0.00%	-
4	304 Structures and Improvements	72,787	-	72,787	3.33%	2,424
5	306 Lake, River, and Other Intakes	-	-	-	2.50%	-
6	307 Wells and Springs	67,868	-	67,868	3.33%	2,260
7	309 Supply Mains	-	-	-	2.00%	-
8	310 Power Generation Equipment	-	-	-	5.00%	-
9	311 Pumping Equipment	77,467	18,083	59,384	12.50%	7,423
10	320.1 Water Treatment Plant	65,102	-	65,102	3.33%	2,168
11	320.2 Chemical Solution Feeders	4,654	1,794	2,860	20.00%	572
12	320.3 Media for Arsenic Treatment	65,560	-	65,560	33.33%	21,853
13	330 Distribution Reservoirs and Standpipes	-	-	-	2.22%	-
14	330.2 Storage Tanks	197,626	-	197,626	5.00%	9,881
15	331 Transmission and Distribution Mains	659,578	-	659,578	2.00%	13,192
16	333 Services	133,392	-	133,392	3.33%	4,442
17	334 Meters and Meter Installations	40,035	-	40,035	8.33%	3,335
18	335 Hydrants	-	-	-	2.00%	-
19	336 Backflow Prevention Devices	-	-	-	6.67%	-
20	339 Other Plant and Miscellaneous Equipment	9,890	-	9,890	6.67%	660
21	340 Office Furniture and Equipment	278	-	278	6.67%	19
22	340.1 Computers and Software	6,098	6,098	-	20.00%	-
23	341 Transportation Equipment	20,280	20,280	-	20.00%	-
24	343 Tools, Shop, and Garage Equipment	65	65	-	5.00%	-
25	344 Laboratory Equipment	-	-	-	10.00%	-
26	345 Power Operated Equipment	-	-	-	5.00%	-
27	346 Communication Equipment	1,855	-	1,855	10.00%	186
28	347 Miscellaneous Equipment	95	-	95	10.00%	10
29	348 Other Tangible Equipment	4,545	4,545	-	10.00%	-
30	Total Plant	\$ 1,443,514	\$ 67,204	\$ 1,376,310		\$ 68,423
31						
32						
33						
34	Composite Depreciation Rate (Depr Exp / Depreciable Plant):	4.97%				
35	CIAC:	\$ 365,823				
36	Amortization of CIAC (Line 31 x Line 32):	\$ 18,187				
37						
38	Depreciation Expense Before Amortization of CIAC:	\$ 68,423				
39	Less Amortization of CIAC:	\$ 18,187				
40	Test Year Depreciation Expense - Staff:	\$ 50,236				
41	Depreciation Expense - Company:	51,585				
42	Staff's Total Adjustment:	\$ (1,349)				

References:

Column [A]: Schedule BCA-4
Column [B]: From Column [A]
Column [C]: Column [A] - Column [B]
Column [D]: Engineering Staff Report
Column [E]: Column [C] x Column [D]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-20

OPERATING INCOME ADJUSTMENT NO. 9 - TAXES OTHER THAN INCOME

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
	Taxes Other Than Income	\$	554	\$	(554)	\$	-

References:

Column A: Company Schedule C-1
Column B: Testimony, Brendan Aladi
Column C: Column [A] + Column [B]

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-21

OPERATING INCOME ADJUSTMENT NO. 10 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 270,040	\$ 270,040
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	540,080	\$ 540,080
4	Staff Recommended Revenue, Per Schedule BCA-1	270,040	\$ 273,934
5	Subtotal (Line 4 + Line 5)	810,120	814,014
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	270,040	\$ 271,338
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	540,080	\$ 542,676
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	-	\$ -
12	Full Cash Value (Line 9 + Line 10 - Line 11)	540,080	\$ 542,676
13	Assessment Ratio	19.0%	19.0%
14	Assessment Value (Line 12 * Line 13)	102,615	\$ 103,108
15	Composite Property Tax Rate	9.2877%	9.2877%
16	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 9,531	\$ -
17	Company Proposed Property Tax	9,714	
18	Staff Test Year Adjustment (Line 16-Line 17)	\$ (183)	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 9,576
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 9,531
21	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 46
22	Increase to Property Tax Expense		\$ 46
23	Increase in Revenue Requirement		3,894
24	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)		100%

OPERATING INCOME ADJUSTMENT NO. 11 - TEST YEAR INCOME TAXES

LINE NO.	DESCRIPTION	(A)	(B)
<u>Calculation of Income Tax:</u>		Test Year	
1	Revenue	\$ 270,040	
2	Less: Operating Expenses - Excluding Income Taxes	\$ 232,340	
3	Less: Synchronized Interest (L17)	\$ 12,469	
4	Arizona Taxable Income (L1- L2 - L3)	\$ 25,231	
5	Arizona State Income Tax Rate	6.500%	
6	Arizona Income Tax (L4 x L5)		\$ 1,640
7	Federal Taxable Income (L4 - L6)	\$ 23,591	
8	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 3,539	
9	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ -	
10	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -	
11	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -	
12	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -	
13	Total Federal Income Tax		\$ 3,539
14	Combined Federal and State Income Tax (L6 + L13)		\$ 5,179
<u>Calculation of Interest Synchronization:</u>			
15	Rate Base	\$ 461,824	
16	Weighted Average Cost of Debt	2.70%	
17	Synchronized Interest (L16 x L17)	\$ 12,469	
18	Income Tax - Per Staff	\$ 5,179	
19	Income Tax - Per Company	\$ (930)	
20	Staff Adjustment	\$ 6,109	

CASH FLOW ANALYSIS

Line No.		Staff Proposed Revenues and Expenses
1	INCOME STATEMENT	
2		
3	Operating Revenue	
4	Metered Water Revenue	\$ 266,176
5	Unmetered Water Revenues	\$ -
6	Other Water Revenues	\$ 7,758
7	Total Operating Rev:	<u>\$ 273,934</u>
8		
9	Operating Expenses	
10	601 Salaries and Wages	\$ -
11	610 Purchased Water	\$ -
12	615 Purchased Power	\$ 17,285
13	618 Chemicals	\$ 191
14	620 Materials and Supplies	\$ 5,588
15	620 Repairs and Maintenance	\$ -
15	621 Office Supplies & Expense	\$ 10,243
16	630 Contractual Services	\$ 106,103
17	635 Water Testing	\$ 3,318
18	641 Rents	\$ 9,528
19	650 Transportation Expenses	\$ 7,017
20	657 Insurance - General Liability	\$ 3,479
21	659 Insurance - Health and Life	\$ -
22	666 Regulatory Comm Exp - Rate Case	\$ 8,750
23	675 Miscellaneous Expense	\$ -
24	670 Bad Debt Expense	\$ 1,068
25	403 Depreciation Expense	\$ 50,236
26	408 Taxes Other Than Income	\$ -
27	408.11 Property Taxes	\$ 9,531
28	409 Income Tax	\$ 5,179
29	Not Used	\$ -
30	Total Operating Expense	<u>\$ 237,515</u>
31		
32	Operating Income	\$ 36,419
33		
34	Interest Income	\$ -
35	Interest Expense on Long-term debt	\$ 17,926
36	Total Other Interest Expense	<u>\$ (17,926)</u>
37		
38	Net Income	\$ 18,493
39		
40	Rate Base	\$ 465,297
41		
42	Rate of Return (Line 30 / Line 38)	7.83%
43		
44	Operating Margin (Line 30 / Line 7)	13.29%
45		
46	Principal Repayment	\$ 34,396
47		
48	AIAC and Customers deposit (Refunds)	\$ 10,360
49		
50	Cash Flow (L 32 + L25 - L44 -L45)	\$ 23,973
51		
52	TIER	
53	Before Tax: [L 28 + L 32] ÷ L 35	2.32
54	After Tax: L32 ÷ L 35	2.03
55	DSC	
56	Before Tax: [L 25 + L28+ L 32] ÷ [L 35 + L 46]	1.76
57	After Tax : [L 25 + L 32] ÷ [L 35 + L 46] (WIFA)	1.66

Abra Water Company, Inc.
Docket No. W-01782A-14-0084
Test Year Ended December 31, 2012

Surrebuttal Schedule BCA-24

Comparison of Last Rate Case Application to General Ledger
--

	Per Application of Last RateCase	Difference	Per Co.'s G/L	
12/31/1997		\$ 3,147.82	\$ 3,147.82	FA Adj
12/31/1999		\$ 368.70	\$ 368.70	Deposits
Beg. Balance	\$ 2,569	\$ (3,516.00)	\$ (947.00)	Staff Adjustment
2003	\$ 1	\$ (1.00)	\$ -	
2004	\$ 1,501	\$ 0.41	\$ 1,501.41	Arden Industries/McPhee Environ.
2005	\$ -	\$ -		
2006	\$ 12,348	\$ 0.34	\$ 12,348.34	Arsenic/Chlorinator Pump/
2007	\$ 88,347	\$ 0.21	\$ 88,347.21	Aquacell
2008	\$ 37,938	\$ (17,152.21)	\$ 20,785.79	Aquacell
2008	\$ -	\$ (79,900.00)	\$ (79,900.00)	Reclass to Prepaid Expense
2009	\$ 2,298	\$ (5,158.05)	\$ (2,860.05)	Reclass to Chemical Feeder
	\$ 145,002.00	\$ (102,209.78)	\$ 42,792.22	
2009	\$ -	\$ 102,209.50	\$ 102,209.50	Arsenic Treatment Plant
	\$ 145,002.00	\$ (0.28)	\$ 145,001.72	

Monthly Usage Charge	Present	Company Proposed Rates	Staff Recommended Rates
Meter Size (All Classes):			
5/8 x 3/4 Inch	\$ 14.00	\$ 18.34	\$ 14.00
3/4 Inch	21.00	27.51	21.00
1 Inch	35.00	45.85	35.00
1 1/2 Inch	70.00	91.70	70.00
2 Inch	112.00	146.72	112.00
3 Inch	224.00	293.44	224.00
4 Inch	350.00	458.50	350.00
6 Inch	700.00	917.00	700.00
8 Inch	-	-	-
Commodity Charge - Per 1,000 Gallons			
5/8 x 3/4-Inch Meter			
From 1 to 3,000 gallons	2.2500	2.5400	\$ 2.2520
From 3,001 to 10,000 gallons	3.8000	4.0400	3.8000
Over 10,000 gallons	6.0000	6.1400	6.0000
3/4-Inch Meter			
From 1 to 3,000 gallons	2.2500	2.5400	\$ 2.2520
From 3,001 to 10,000 gallons	3.8000	4.0400	3.8000
Over 10,000 gallons	6.0000	6.1400	6.0000
1" Meter			
From 1 to 15,000 gallons	3.3000	4.0400	3.8000
Over 15,000 gallons	3.9000	6.1400	6.0000
From 1 to 16,000 gallons	N/A	4.0400	N/A
Over 16,000 gallons	N/A	6.1400	N/A
1 1/2" Meter			
From 1 to 30,000 gallons	3.3000	4.0400	3.8000
Over 30,000 gallons	3.9000	6.1400	6.0000
2" Meter			
From 1 to 45,000 gallons	3.3000	4.0400	3.8000
Over 45,000 gallons	3.9000	6.1400	6.0000
3" Meter			
From 1 to 90,000 gallons	3.3000	4.0400	3.8000
Over 90,000 gallons	3.9000	6.1400	6.0000
4" Meter			
From 1 to 145,000 gallons	3.3000	4.0400	3.8000
Over 145,000 gallons	3.9000	6.1400	6.0000
6" Meter			
From 1 to 300,000 gallons	3.3000	4.0400	3.8000
Over 300,000 gallons	3.9000	6.1400	6.0000
Standpipe/ Coin Operated			
Per 1000 Gallons	3.9000	6.2500	6.0000
Service Line and Meter Installation Charges			
Establishment	\$ 30.00	\$ 30.00	\$ 30.00
Establishment (After Hours)	\$ 40.00	40.00	N/A
Reconnection (Delinquent)	\$ 50.00	\$ 50.00	\$ 50.00
Reconnection Delinquent (After Hours)	\$ 50.00	\$ 50.00	N/A
Meter Test (If Correct)	\$ 50.00	\$ 50.00	\$ 50.00
Deposit (Residential Meter)	(a)	(a)	(a)
Deposit (Non-Residential Meter)	(a)	N/A	(a)
Deposit Interest	6.00%	6.00%	6.00%
Re-establishment (within 12 months)	(b)	**	(b)
Re-establishment (After hours)	(b)	**	N/A
NSF Check	\$ 25.00	\$ 10.00	\$ 10.00
Deferred Payment (per month)	1.50%	1.50%	1.50%
Late Payment Fee (per month)	1.50%	1.50%	1.50%
Meter Re-read (if correct)	\$ 20.00	\$ 10.00	\$ 10.00
After Hour Service Charge (at customers request)	N/A	N/A	\$ 30.00
Fire Sprinkler (All Meter Sizes)	(c)	N/A	(c)

- (a) Residential - two times the average bill. Non-residential - two and one-half times the average bill. R14-2-403(B)(7).
(b) Months of system times the minimum. Per Commission Rule (R14-2-403D)
(c) 2 percent of the monthly minimum for a comparable size meter connection but not less than \$10 per month.

In addition to the collection of regular rates, the utility will collect from its customers a proportionate share of of any privilege, sales, use and franchise tax. R14-2-409(D)(5).

All advances and/or contributions are to include labor, materials, overheads and all applicable taxes. Cost to include labor, materials and parts, overheads and all applicable taxes.

Service Line and Meter Installation Charges				Company Proposed			Staff Recommended		
	Company Current Rates	Service Line Charge	Meter Charge	Total Charge			Service Line Charge	Meter Charge	Total Charge
5/8" x 3/4" Meter	\$ 425	380	\$ 95	\$ 475	380	\$ 95	380	\$ 95	\$ 475
3/4" Meter	\$ 450	335	\$ 165	\$ 500	335	\$ 165	335	\$ 165	\$ 500
1" Meter	\$ 500	350	\$ 200	\$ 550	350	\$ 200	350	\$ 200	\$ 550
1-1/2" Meter	\$ 700	470	\$ 430	\$ 900	470	\$ 430	470	\$ 430	\$ 900
2" Meter	\$ 1,125	590	\$ 735	\$ 1,325	590	\$ 735	590	\$ 735	\$ 1,325
3" Meter	\$ 1,505	660	\$ 1,045	\$ 1,705	660	\$ 1,045	660	\$ 1,045	\$ 1,705
4" Meter	\$ 2,340	910	\$ 1,630	\$ 2,540	910	\$ 1,630	910	\$ 1,630	\$ 2,540
6" Meter	\$ 4,445	1410	\$ 3,235	\$ 4,645	1,410	\$ 3,235	1,410	\$ 3,235	\$ 4,645

Typical Bill Analysis
Residential 5/8 Inch Meter

Surrebuttal Schedule BCA-26

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	5,717	\$ 33.80	\$ 39.84	\$ 6.03	17.85%
Median Usage	5,500	28.76	34.48	\$ 5.72	19.87%

Staff Recommended

Average Usage	5,717	\$ 33.80	\$ 33.80	\$ -	0.00%
Median Usage	5,500	28.76	28.76	\$ -	0.00%

Present & Proposed Rates (Without Taxes)
Residential 5/8 Inch Meter

Gallons	Present	Company Proposed	%	Staff Recommended	%
	5/8 x 3/4"			5/8 x 3/4"	
	Minimum Charge \$ 14.00	Minimum Charge \$ 18.34		Minimum Charge \$ 14.00	
	1st Tier Rate 2.2500	1st Tier Rate 2.5400		1st Tier Rate 2.2500	
	1st Tier Breakover 3,000	1st Tier Breakover 3,000		1st Tier Breakover 3,000	
	2nd Tier Rate 3.8000	2nd Tier Rate 4.0400		2nd Tier Rate 3.8000	
	2nd Tier Breakover 10,000	2nd Tier Breakover 10,000		2nd Tier Breakover 10,000	
	3rd Tier Rate 6.0000	3rd Tier Rate 6.1400		3rd Tier Rate 6.0000	

Consumption	Rates	Rates	Increase	Rates	Increase
-	\$ 14.00	\$ 18.34	31.00%	\$ 14.00	0.00%
1,000	16.25	20.88	28.49%	16.25	0.00%
2,000	18.50	23.42	26.59%	18.50	0.00%
3,000	20.75	25.96	25.11%	20.75	0.00%
4,000	24.55	30.00	22.20%	24.55	0.00%
5,000	28.35	34.04	20.07%	28.35	0.00%
5,109	28.76	34.48	19.87%	28.76	0.00%
6,000	32.15	38.08	18.44%	32.15	0.00%
6,435	33.80	39.84	17.85%	33.80	0.00%
7,000	35.95	42.12	17.16%	35.95	0.00%
8,000	39.75	46.16	16.13%	39.75	0.00%
9,000	43.55	50.20	15.27%	43.55	0.00%
10,000	47.35	54.24	14.55%	47.35	0.00%
11,000	53.35	60.38	13.18%	53.35	0.00%
12,000	59.35	66.52	12.08%	59.35	0.00%
13,000	65.35	72.66	11.19%	65.35	0.00%
14,000	71.35	78.80	10.44%	71.35	0.00%
15,000	77.35	84.94	9.81%	77.35	0.00%
16,000	83.35	91.08	9.27%	83.35	0.00%
17,000	89.35	97.22	8.81%	89.35	0.00%
18,000	95.35	103.36	8.40%	95.35	0.00%
19,000	101.35	109.50	8.04%	101.35	0.00%
20,000	107.35	115.64	7.72%	107.35	0.00%
25,000	137.35	146.34	6.55%	137.35	0.00%
30,000	167.35	177.04	5.79%	167.35	0.00%
35,000	197.35	207.74	5.26%	197.35	0.00%
40,000	227.35	238.44	4.88%	227.35	0.00%
45,000	257.35	269.14	4.58%	257.35	0.00%
50,000	287.35	299.84	4.35%	287.35	0.00%
75,000	437.35	453.34	3.66%	437.35	0.00%
100,000	587.35	606.84	3.32%	587.35	0.00%

BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP

Chairman

GARY PIERCE

Commissioner

BRENDA BURNS

Commissioner

SUSAN BITTER SMITH

Commissioner

BOB BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF)
ABRA WATER COMPANY, AN ARIZONA)
CORPORATION, FOR A DETERMINATION)
OF THE CURRENT FAIR VALUE OF ITS)
UTILITY PLANT AND PROPERTY AND FOR)
INCREASES IN ITS RATES AND CHARGES)
FOR UTILITY SERVICE.)
_____)

DOCKET NO. W-01782A-14-0084

SURREBUTTAL

TESTIMONY

OF

CRYSTAL S. BROWN

EXECUTIVE CONSULTANT III

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

SEPTEMBER 15, 2014

TABLE OF CONTENTS

	<u>PAGE</u>
I. INTRODUCTION	1
II. STAFF'S RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR. THOMAS J. BOURASSA	1
III. STAFF RECOMMENDATIONS	5

SURREBUTTAL SCHEDULES

Capital Structure and Weighted Cost of Capital.....	CSB-1
Intentionally Left Blank.....	CSB-2
Final Cost of Equity Estimates for Sample Water Utilities.....	CSB -3
Average Capital Structure of Sample Water Utilities	CSB -4
Growth in Earnings & Dividends of Sample Water Utilities	CSB -5
Sustainable Growth for Sample Water Utilities	CSB -6
Selected Financial Data of Sample Water Utilities	CSB -7
Calculation of Expected Infinite Annual Growth in Dividends	CSB -8
Multi-Stage DCF Estimates	CSB -9
Cost of Capital Calculation Capitalization	CSB -10

**EXECUTIVE SUMMARY
ABRA WATER COMPANY
DOCKET NO. W-01782A-14-0084**

The surrebuttal testimony of Staff witness Crystal S. Brown addresses the following issues:

Capital Structure – Staff continues to recommend that the Commission adopt a capital structure for Abra Water Company (“Abra” or “Company”) for this proceeding consisting of 51.4 percent debt and 48.6 percent equity.

Cost of Equity – Staff recommends that the Commission adopt a 9.6 percent cost of equity for the Company. Staff’s estimated cost of equity for the Company is based on the 9.0 percent average of its discounted cash flow method (“DCF”) cost of equity methodology estimates for the sample companies of 8.6 percent for the constant-growth DCF model and 9.3 percent for the multi-stage DCF models. Staff’s recommended cost of equity includes an upward economic assessment adjustment of 60 basis points (0.6 percent).

Cost of Debt – Staff recommends that the Commission adopt a 5.2 percent cost of debt for the Company.

Overall Rate of Return – Staff recommends that the Commission adopt an 7.4 percent overall rate of return which is the midpoint between the 7.2 percent and 7.5 percent rates of return shown on Schedule CSB-1a.

Mr. Bourassa’s Testimony – Staff continues to recommend that the Commission reject the Company’s proposed 11.00 percent return on equity (“ROE”) because it was derived using only the Build-Up method.

1 **I. INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Crystal S. Brown. I am an Executive Consultant III employed by the Arizona
4 Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Are you the same Crystal S. Brown who filed direct testimony in this case?**

8 A. Yes, I am.
9

10 **Q. What is the purpose of your surrebuttal testimony in this rate proceeding?**

11 A. The purpose of my surrebuttal testimony is to update Staff's cost of capital recommendations
12 and to respond to the cost of capital rebuttal testimony of Abra Water Company's ("Abra" or
13 "Company") witness, Thomas J. Bourassa.
14

15 **Q. Please explain how Staff's surrebuttal testimony is organized.**

16 A. Staff's surrebuttal testimony is presented in three sections. Section I is this introduction.
17 Section II presents Staff's comments on the rebuttal testimony of the Company's cost of
18 capital witness, Mr. Bourassa. Lastly, Section III presents Staff's recommendations.
19

20 **II. STAFF'S RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR.**
21 **THOMAS J. BOURASSA**

22 **Q. Please summarize the capital structure, cost of debt, cost of equity, and overall**
23 **weighted average cost of capital proposed in Mr. Bourassa's rebuttal testimony.**

24 A. In his rebuttal testimony, Mr. Bourassa is proposing a capital structure consisting of 51.49
25 percent debt and 48.51 percent equity. Mr. Bourassa continues to recommend an 11.00

1 percent cost of equity for the Company. Mr. Bourassa's cost of capital recommendations
2 result in an overall rate of return ("ROR") for Abra of 8.85 percent.

3
4 **Q. Did Mr. Bourassa use only one method to derive the Company's cost of equity**
5 **("COE")?**

6 A. Yes. Mr. Bourassa used the Build-Up Method.

7
8 **Q. What is the Build-Up method?**

9 A. The Build-Up Method is an additive model in which the return on a security is the sum of a
10 risk-free rate and one or more risk premia.

11
12 **Q. What does Mr. Bourassa state concerning relying upon more than one method to**
13 **determine the COE?**

14 A. On page 15, beginning at line 15 of his rebuttal testimony, he states:

15
16 The academic literature indicates the need to *rely upon more than one*
17 *method* in arriving at a recommended common equity cost rate. This is
18 because each method requires the use of considerable judgment on
19 the reasonableness of the underlying assumptions underlying the
20 theoretical basis of each model. Emphasis added.

21
22 **Q. Does Staff agree that more than one method should be used to estimate the COE?**

23 A. When available and possible, yes. Staff utilizes the Constant Growth Discounted Cash Flow
24 method ("DCF"), the Multi-Stage DCF method and, when appropriate, the Capital Asset
25 Pricing Model ("CAPM") method.

26

1 Q. What is the primary problem with using only one methodology?

2 A. The problem with using one COE methodology is that the COE may be over or under
3 stated.

4
5 Q. Using data from some of Mr. Bourassa's recent cases, can Staff provide examples of
6 how the COE derived from the Build-Up Method compares to the DCF and CAPM
7 methods?

8 A. Yes, Staff has prepared Table A. This table presents COEs derived by Mr. Bourassa in
9 recent proceedings using the DCF, CAPM, and Build-Up methodologies. Table A shows
10 that the Build-Up methodology produced a higher COE in three of the five cases.

11

TABLE A					
MEDIAN RESULTS USING DCF, CAPM, & BUILD-UP METHODS					
	Utility Source, LLC	Lago Del Oro Water Co.	Payson Water Co.	Verde Santa Fe Wastewater Co.	Las Quintas Serenas Water Co.
Docket No.	13-0331	13-0215	13-0111	13-0292	13-0117
DCF Method	8.5%	8.7%	9.2%	8.5%	9.2%
CAPM Method	9.9%	9.5%	10.5%	9.6%	10.5%
Build-Up Method	11.7%	11.1%	10.1%	11.7%	10.1%
Midpoint	10.1%	9.9%	9.9%	10.1%	9.9%
Company Proposed COE	11.0%	10.5%	10.5%	11.0%	12.5%

12

1 **Q. How does the COE derived from the Build-Up method compare to the midpoint of**
 2 **the COEs derived from the DCF and the CAPM methods?**

3 A. As shown in Table B below, the COE derived from the Build-Up method (Line 1) is higher
 4 than the midpoint of the DCF and the CAPM methods (Line 5). In some cases, it is more
 5 than 200 basis points higher (Line 7).

TABLE B						
COMPARISON OF BUILD-UP COE TO DCF & CAPM MIDPOINT COE						
		Utility Source, LLC	Lago Del Oro Water Co.	Payson Water Co.	Verde Santa Fe Wastewater Co.	Las Quintas Serenas Water Co.
1	Build-Up Method	11.7%	11.1%	10.1%	11.7%	10.1%
2						
3	DCF	8.5%	8.7%	9.2%	8.5%	9.2%
4	CAPM	9.9%	9.5%	10.5%	9.6%	10.5%
5	Midpoint [(L3+L4)/2]	9.2%	9.1	9.85	9.05	9.85
6						
7	Difference (L1-L5)	2.5%	2.0%	0.25%	2.65%	.25%

7
 8 **Q. Is the Build-Up Method taught in any National Association of Regulatory Utility**
 9 **Commissioners ("NARUC") sponsored training classes?**

10 A. No, not that Staff is aware. Further, the Build-Up method is not in widespread use among
 11 public utility commissions.

12
 13 **Q. Did Staff review Mr. Bourassa's rebuttal testimony on page 16, line 19 which**
 14 **indicates that Staff ignored the CAPM method in this case?**

15 A. Yes. Staff performed a CAPM analysis but chose not to include the result in Staff's analysis
 16 as Staff believes it does not currently reflect market conditions.

1 **Q. Did Staff review Mr. Bourassa's rebuttal testimony on page 17, line 3½ that**
2 **recommends that an economic assessment adjustment ("EAA") of 100 to 200 basis**
3 **points be adopted?**

4 **A. Yes.**

5
6 **Q. Does Staff agree?**

7 **A. No, Staff does not agree.**

8
9 **Q. Did Staff review Mr. Bourassa's rebuttal testimony concerning the debt issuance**
10 **costs?**

11 **A. Yes.**

12
13 **Q. Does Staff agree?**

14 **A. No.** In response to a Staff data request regarding the debt issuance costs, Mr. Bourassa
15 contacted Staff and indicated that the interest rates used in Staff's direct testimony included
16 the administrative fees (i.e., debt issuance costs). Therefore, no change was necessary.

17
18 **III. STAFF RECOMMENDATIONS**

19 **Q. In updating its cost of capital analysis for the Company, did Staff's recommended**
20 **ROE and overall ROR change from the levels recommended by Staff in direct**
21 **testimony?**

22 **A. Yes.** Staff now recommends a ROE of 9.6 percent instead of 9.5 percent. As a consequence
23 of this change, Staff's recommended overall ROR increased from 7.3 percent in direct
24 testimony to 7.4 percent in surrebuttal.

25

1 **Q. What factors contributed to this upward change to Staff's estimated cost of equity for**
2 **Abra?**

3 A. Since the filing of Staff's direct testimony, the spot market price of Staff's sample group of
4 companies has fallen slightly and as a consequence the expected dividend yield (D_1/P_0)
5 component of the constant growth DCF model has risen from 2.8 percent in Staff's direct
6 testimony to 2.9 percent in Staff's surrebuttal testimony. Similarly, over the same period of
7 time, Staff's Multi-Stage DCF estimate rose from 9.2 percent to 9.3 percent. Accordingly,
8 Staff's estimated COE rose from 8.9 percent to 9.0 percent.

9
10 **Q. Based on Staff's review of Mr. Bourassa's rebuttal testimony, and given its updated**
11 **cost of capital analysis, what are Staff's recommendations for the Company?**

12 A. Staff recommends the following for Abra's cost of capital:

- 13 1. A capital structure of 51.4 percent debt and 48.6 percent equity.
- 14 2. A 2.7 percent weighted cost of debt.
- 15 3. A 9.6 percent return on equity (a figure which includes an upward 60 basis point (0.6
- 16 percent) economic assessment adjustment).
- 17 4. A 7.4 percent overall rate of return.

18
19 **Q. Does this conclude your surrebuttal testimony?**

20 A. Yes, it does.

21

Abra Water Company Cost of Capital Calculation
Capital Structure
And Weighted Average Cost of Capital
Staff Recommended and Company Proposed

[A]	[B]	[C]	[D]
Description	Weight (%)	Cost	Weighted Cost
Staff Recommended Structure			
Debt	51.4%	5.2%	2.7%
Common Equity	48.6%	9.6%	4.7%
Weighted Average Cost of Capital			7.4%
Company Proposed Structure			
Debt	51.49%	6.82%	3.51%
Common Equity	48.51%	11.00%	5.34%
Weighted Average Cost of Capital			8.85%

[D] : [B] x [C]
Supporting Schedules: CSB-2, CSB-3 and CSB-4.

Capital Structure
And Weighted Average Cost of Capital
Low and High Values of Range

[A]	[B]	[C]	[D]
Description	Weight (%)	Cost	Weighted Cost (Col A x Col B)
Low Value of Range			
Debt	51.4%	5.2%	2.7%
Common Equity (Using 8.5% Constant Growth DCF)	48.6%	9.2% Line 36, Col. E	4.5%
Weighted Average Cost of Capital - Low Value of Range			7.2%
High Value of Range			
Debt	51.4%	5.2%	2.7%
Common Equity (Using 9.2% Multi-Stage DCF)	48.6%	9.9% Line 52, Col. E	4.8%
Weighted Average Cost of Capital - High Value of Range			7.5%
[D] : [B] x [C]			
Supporting Schedules: CSB-2, CSB-3 and CSB-4.			
[A]	[B]	[C]	[D]
[E]			
Constant Growth DCF Estimate		$\frac{D}{P_0} \cdot 1 + \frac{g}{2} = k$	
24		2.9%	8.6%
25		5.7%	8.6%
32			8.6%
33			0.6%
34			9.2%
35			0.0%
36			9.2%
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
1 MSN Money and Value Line			
2 ScheduleCSB-8			
Multi-Stage DCF Estimate			9.3%
Staffs Estimated Cost of Equity			9.3%
Economic Assessment Adjustment			0.6%
Sub-Total			9.9%
Financial Risk Adjustment			0.0%
Total			9.9%

Intentionally left blank

Abra Water Company Cost of Capital Calculation
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	40.8%	59.2%	100.0%
California Water	47.2%	52.8%	100.0%
Aqua America	52.0%	48.0%	100.0%
Connecticut Water	50.8%	49.2%	100.0%
Middlesex Water	45.9%	54.1%	100.0%
SJW Corp	54.7%	45.3%	100.0%
York Water	<u>44.2%</u>	<u>55.8%</u>	<u>100.0%</u>
 Average Sample Water Utilities	 47.9%	 52.1%	 100.0%
 Abra Water Co. - Actual Capital Structure	 51.4%	 48.6%	 100.0%

Source:

Sample Water Companies from Value Line

Abra Water Company Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
	Dividends Per Share 2003 to 2013	Dividends Per Share Projected	Earnings Per Share 2003 to 2013	Earnings Per Share Projected
<u>Company</u>	<u>DPS¹</u>	<u>DPS¹</u>	<u>EPS¹</u>	<u>EPS¹</u>
American States Water	5.6%	7.7%	15.2%	3.9%
California Water	1.3%	8.0%	4.9%	8.9%
Aqua America	7.6%	9.0%	9.7%	6.0%
Connecticut Water	1.7%	3.4%	3.7%	3.3%
Middlesex Water	1.5%	2.0%	5.4%	3.1%
SJW Corp	4.1%	5.2%	2.1%	8.7%
York Water	<u>4.1%</u>	<u>6.0%</u>	<u>4.8%</u>	<u>8.0%</u>
 Average Sample Water Utilities	 3.7%	 5.9%	 6.5%	 6.0%

1 Value Line

Abra Water Company Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
<u>Company</u>	Retention Growth 2003 to 2013 <u>br</u>	Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Sustainable Growth 2003 to 2013 <u>br + vs</u>	Sustainable Growth Projected <u>br + vs</u>
American States Water	4.1%	5.6%	1.7%	5.8%	7.3%
California Water	2.7%	3.8%	3.1%	5.7%	6.9%
Aqua America	4.2%	6.0%	1.8%	5.9%	7.8%
Connecticut Water	2.1%	3.5%	3.4%	5.5%	6.9%
Middlesex Water	1.3%	2.8%	2.8%	4.2%	5.7%
SJW Corp	3.2%	3.6%	0.8%	4.1%	4.5%
York Water	<u>2.2%</u>	<u>4.0%</u>	<u>4.5%</u>	<u>6.6%</u>	<u>8.5%</u>
Average Sample Water Utilities	2.8%	4.2%	2.6%	5.4%	6.8%

[B]: Value Line

[C]: Value Line

[D]: Value Line, MSN Money, and Form 10-Ks filed with the Securities and Exchange Commission (<http://www.sec.gov/>)

[E]: [B]+[D]

[F]: [C]+[D]

Abra Water Company Cost of Capital Calculation
Selected Financial Data of Sample Water Utilities

[A] [B] [C] [D] [E] [F] [G]

Company	Symbol	Spot Price	Book Value	Mkt To	Value Line	Raw
		<u>9/3/2014</u>		<u>Book</u>	Beta	Beta
American States Water	AWR	32.32	12.74	2.5	0.70	0.52
California Water	CWT	24.11	12.28	2.0	0.70	0.52
Aqua America	WTR	24.94	8.57	2.9	0.70	0.52
Connecticut Water	CTWS	33.08	16.43	2.0	0.65	0.45
Middlesex Water	MSEX	20.65	12.09	1.7	0.70	0.52
SJW Corp	SJW	27.76	15.63	1.8	0.80	0.67
York Water	YORW	20.32	8.29	2.5	0.75	0.60
Average				2.2	0.71	0.54

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: $(-0.35 + [F]) / 0.67$

0.7083

Abra Water Company Cost of Capital Calculation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A]	[B]
<u>Description</u>	<u>g</u>
DPS Growth - Historical ¹	3.7%
DPS Growth - Projected ¹	5.9%
EPS Growth - Historical ¹	6.5%
EPS Growth - Projected ¹	6.0%
Sustainable Growth - Historical ²	5.4%
<u>Sustainable Growth - Projected²</u>	<u>6.8%</u>
Average	5.7%

1 Schedule CSB-5

2 Schedule CSB-6

Abra Water Company Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
<u>Company</u>	Current Mkt. Price (P_0) ¹	Projected Dividends ² (Stage 1 growth) (D_t)				Stage 2 growth ³ (g_n)	Equity Cost Estimate (K) ⁴
	9/3/2014	d_1	d_2	d_3	d_4		
American States Water	32.3	0.86	0.91	0.96	1.01	6.5%	9.1%
California Water	24.1	0.66	0.70	0.74	0.78	6.5%	9.2%
Aqua America	24.9	0.64	0.68	0.72	0.76	6.5%	9.0%
Connecticut Water	33.1	0.99	1.05	1.11	1.17	6.5%	9.4%
Middlesex Water	20.7	0.77	0.81	0.86	0.91	6.5%	10.1%
SJW Corp	27.8	0.74	0.78	0.83	0.87	6.5%	9.1%
York Water	20.3	0.56	0.59	0.63	0.66	6.5%	9.2%

Average **9.3%**

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Where : P_0 = current stock price
 D_t = dividends expected during stage 1
 K = cost of equity
 n = years of non – constant growth
 D_n = dividend expected in year n
 g_n = constant rate of growth expected after year n

1 [B] see Schedule JAC-7

2 Derived from Value Line Information

3 Average annual growth in GDP 1929 - 2012 in current dollars.

4 Internal Rate of Return of Projected Dividends

Abra Water Company Cost of Capital Calculation				
Capitalization				
			(Per Data Request BCA 1.3)	
	<u>Interest Rate</u>	<u>Annual Interest</u>	<u>Amount outstanding</u> <u>as of 12/31/2012</u>	<u>Percentage of</u> <u>Capital Structure</u>
Long-Term Debt				
Big Chino Loan	10.000%	\$ 812	\$ 8,117	
WIFA Loan	4.20%	\$ 4,224	\$ 100,565	
WIFA Loan	5.6%	\$ 10,978	\$ 196,032	
Chase Loan	4.7%	\$ 1,520	\$ 32,330	
Long-Term Debt	5.2%	\$ 17,533	\$ 337,044	51.37%
Short-Term Debt				
		-		0.00%
Total Debt		\$ 17,533	\$ 337,044	51.37%
Common Equity				
Common Shares Outstanding			\$ 319,020	
Paid in Capital				
Retained Earnings				
Total Common Equity			\$ 319,020	48.63%
Total Capitalization			\$ 656,064	100.00%